

Notice of Allowability

Application No.

09/416,308

Examiner

HUNG Q. PHAM

Applicant(s)

KATHAIL ET AL.

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/28/2005.
2. ☒ The allowed claim(s) is/are 19,23-27 and 31-34.
3. ☒ The drawings filed on 28 March 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


SHAHID ALAM
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

- An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

- Authorization for this examiner's amendment was given in a telephone interview with applicants' representative, William P. Wilbar, on 04/15/2005.

Replace claim 19 in the Amendment filed on 03/28/2005 by the clean version (without underlined and crossed mark) amended by examiner as below:

(Claim 19) *A product for providing a configuration database subsystem that maintains configuration data for objects in a network for a router device comprising:*

- instructions for directing a processing unit in said router device to:*
 - maintain a configuration database;*
 - receive a notification request sent from one of a plurality of subsystems in said router device, wherein said notification request is a request to receive notification of changes to configuration data of an object in said network identified in said notification request and wherein each of said plurality of subsystems is instructions executed by said processing unit to provide an application of an internetwork operating system;*
 - store an identification of said one of said plurality of subsystems that transmitted said notification request in a record in said database that stores said configuration data for said object identified in said notification request wherein said identification identifies said one of said plurality of subsystems as a subsystem to notify in response to a change in said configuration data for said object in said record;*
 - set a notification flag in said record wherein said notification flag indicates that a notification must be sent responsive to a change;*

*receive a change in said configuration data of said object;
retrieve said record that stores said configuration data for said object;
read said notification flag;
determine whether said notification flag is set;
read said identification of said one of said plurality of subsystems from said record that stores said configuration data for said object to receive said change in said configuration data responsive to a determination that said notification flag is set; and
transmit a notification of said change of configuration data of said object to said one of said plurality of subsystems responsive to said reading of said identification; and
a media readable by said processing unit that stores said instructions.*

Replace claim 23 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

*(Claim 23) The product of claim 19 wherein said instructions further comprise:
instructions for directing said processing unit to:
determine said notification request is configuration data of a name space;
retrieve each child record of said record; and
set a notification flag in each said child record.*

Replace claim 24 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

*(Claim 24) The product of said 23 wherein said instructions further comprise:
instructions for directing said processing unit to:
receive a change to configuration in a child record;
retrieve said child record responsive to receiving said change;
read said notification flag in said child record responsive to retrieving said record;
read a parent record of said child responsive to reading said notification flag; and
transmit notification of said change of said change to said one of said plurality of subsystems identified in said parent record.*

Replace claim 25 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

(Claim 25) *The product of claim 19 wherein said instructions further comprise:
instructions for directing said processing unit to:*

*receive a remove notification request from said one of said plurality of subsystems,
wherein said remove notification request is a request to remove said one of said plurality of
subsystems from said plurality of subsystems to be notified in response to a change in said
configuration data; and*

*remove said identification of said one of said plurality of subsystems from said record
of said configuration data storing subsystems to be notified of a change in said configuration
data.*

Replace claim 26 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

(Claim 26) *The product of claim 25 wherein said instructions further comprise:
instructions for directing said processing unit to:*

*determine whether said configuration data for which said remove notification request
is for a name space;*

*retrieve each child record of said record of said configuration data responsive to a
determination said configuration data is a name space; and*

remove a notification flag from each said child record.

Replace claim 27 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

(Claim 27) *A computer-implemented method for providing a configuration database
subsystem that maintains configuration data for objects in a network for a router device
comprising:*

maintaining a configuration database;
receiving a notification request sent from one of a plurality of subsystems in said router device, wherein said notification request is a request to receive notification of changes to configuration data of an object in said network identified in said notification request and wherein each of said plurality of subsystems is instructions executed by a processing unit in said router to provide an application of an internetwork operating system;
storing an identification of said one of said plurality of subsystems that transmitted said notification request in a record in said database that stores said configuration data for said object identified in said notification request wherein said identification identifies said one of said plurality of subsystems as a subsystem to notify in response to a change in said configuration data for said object in said record;
setting a notification flag in said record wherein said notification flag indicates that notification is required responsive to a change;
receiving a change in said configuration data of said object;
retrieving said record that stores said configuration data for said object;
reading said notification flag;
determining whether said notification flag is set;
reading said identification of said one of said plurality of subsystems from said record that stores said configuration data for said object to receive said change in said configuration data responsive to a determination that said notification flag is set; and
transmitting a notification of said change of configuration data of said object to said one of said plurality of subsystems responsive to said reading of said identification.

Replace claim 31 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

(Claim 31) *The method of claim 27 further comprising:*
determining said notification request is configuration data of a name space;
retrieving each child record of said record; and
setting a notification flag in each said child record.

Replace claim 32 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

(Claim 32) *The method of claim 31 further comprising:*
receiving a change to configuration in a child record;
retrieving said child record responsive to receiving said change;
reading said notification flag in said child record responsive to retrieving said record;
reading a parent record of said child responsive to reading said notification flag; and
transmitting notification of said change of said change to said one of said plurality of
subsystems identified in said parent record.

Replace claim 33 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

(Claim 33) *The method of claim 27 further comprising:*
receiving a remove notification request from said one of said plurality of subsystems,
wherein said remove notification request is a request to remove said one of said plurality of
subsystems from said plurality of subsystems to be notified in response to a change in said
configuration data; and
removing said identification of said one of said plurality of subsystems from said
record of said configuration data storing subsystems to be notified of a change in said
configuration data.

Replace claim 34 in the Amendment filed on 03/28/2005 by the clean version
(without underlined and crossed mark) amended by examiner as below:

(Claim 34) *The method of claim 33 further comprising:*
determining whether said configuration data for which said remove notification request is for a
name space;

retrieving each child record of said record of said configuration data responsive to a determination said configuration data is a name space; and removing a notification flag from each said child record.

REASONS FOR ALLOWANCE

Claims 19, 23-27 and 31-34 (renumbered as 1-10) are allowed.

The following is an examiner's statement of reasons for allowance:

The closest available prior arts, Thomas et al. [USP 6,061,692] and Lakis et al. [USP 6,532,491 B1], in combination, also teach a computer method and program for providing a configuration database subsystem that maintains configuration data for objects in a network. However, Thomas and Lakis fail to teach or suggest the steps of *read said notification flag; determine whether said notification flag is set; read said identification of said one of said plurality of subsystems from said record that stores said configuration data for said object to receive said change in said configuration data responsive to a determination that said notification flag is set; and transmit a notification of said change of configuration data of said object to said one of said plurality of subsystems responsive to said reading of said identification* as in claims 19 and 27. Therefore, the invention is allowable over the prior arts including the providing steps as indicated above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E. BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HUNG Q PHAM
Examiner
Art Unit 2162

April 19, 2005



SHAHID ALAM
PRIMARY EXAMINER